Complete Summary

GUIDELINE TITLE

Clinical practice guideline for post-deployment health evaluation and management.

BIBLIOGRAPHIC SOURCE(S)

Veterans Health Administration, Department of Defense. Clinical practice guideline for post-deployment health evaluation and management, version 1.2. Washington (DC): Veterans Health Administration, Department of Defense; 2001 Dec. Various p.

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Post-deployment health

GUIDELINE CATEGORY

Evaluation
Management

CLINICAL SPECIALTY

Family Practice
Internal Medicine

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians
Students

GUIDELINE OBJECTIVE(S)

- To promote evidence-based management of individuals with post-deployment health concerns
- To identify the critical decision points in management of patients with post-deployment health concerns
- To accommodate local policies or procedures, such as those regarding referrals to, or consultation with specialists
- To improve local management of patients with post-deployment health concerns and thereby improve patient outcome

TARGET POPULATION

Department of Defense or Veterans Health Administration health care beneficiary presenting to a primary care clinician for the evaluation and management of a post-deployment health concern

INTERVENTIONS AND PRACTICES CONSIDERED

1. Patient assessment including review of medical records, medical history, physical and mental examination, laboratory testing, deployment history, and standard health assessment using Patient Health Questionnaire (PHQ) and Post Traumatic Stress Disorder (PTSD) Checklist
2. Promote patient trust through open and honest communication, caring and empathy, competence and expertise, and dedication and commitment
3. Provide patient education
4. Referral to a specialist if health concerns continue
5. Follow-up as indicated
6. Perform additional ancillary studies as indicated including erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP), antinuclear antibodies (ANAs), creatinine phosphokinase (CPK), thyroid stimulating hormone (TSH), electromyography, Venereal Disease Research Laboratories (VDRL) testing, viral serologic testing, human lymphocyte antigen (HLA), lyme antibodies, rheumatoid factors, human immunodeficiency virus testing, and drug screening
7. Monitor changes in health status via the Short-Form Health Survey (SF-36) or the Veterans specific version (SF-36V).

MAJOR OUTCOMES CONSIDERED

- Continuity of care
- Patient satisfaction
- Patient's perception of quality of care

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A search was carried out using the National Library of Medicine's (NLM) MEDLINE database. Boolean "AND" expressions were used in conjunction with the targeted MEDLINE Medical Subject Headings (MeSH) "descriptor" categories, including but not limited to, those listed below:

- Anxiety
- Mental disorders, including anxiety and depression
- Pharmacotherapies
- Fatigue syndrome
- Fibromyalgia
- Medically unexplained symptoms
- Multiple chemical sensitivities
- Post-Traumatic Stress Syndrome
- Post War Risk Factors

Medical subject heading "qualifiers" (e.g., meta-analysis), were also utilized to request specific types of publications, such as peer reviewed journals and tutorials, using two discreet query delimiters:

- Articles published between 1996 and 1999, with some exceptions
- English language only

Each work group participant received a reference package of relevant literature, including journal abstracts/articles, texts, and publications and several sample health evaluation screening tools.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of Evidence

I Evidence is obtained from at least one properly randomized controlled trial.

II-1 Evidence is obtained from well-designed controlled trials without randomization.

II-2 Evidence is obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.

II-3 Evidence is obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments could also be regarded as this type of evidence.

III Opinions of respected authorities are based on clinical experience, descriptive studies in case reports, or reports of expert committees.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

The development process for the Guideline was evidence-based whenever possible. Evidence-based practice integrates clinical expertise with the best available clinical evidence derived from systematic research. Where evidence is ambiguous or conflicting, or scientific data are lacking, the clinical experience within the multidisciplinary group guided the development of consensus-based recommendations.

The work group reviews the articles for relevance and grades the evidence using the rating scheme published by the United States Preventive Services Task Force (USPSTF). The experts themselves, after an orientation and tutorial on the evidence-grading process, formulate Quality of Evidence and Strength of Recommendation ratings. Each reference is appraised for scientific merit, clinical relevance, and applicability to the populations served by the Federal health care system. Recommendations are based on consensus of expert opinions and clinical experience, only when scientific evidence is unavailable.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Recommendations are based on consensus of expert opinions and clinical experience, when scientific evidence is unavailable.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Recommendations

A. There is good evidence to support the recommendation that the condition be specifically considered.

B. There is fair evidence to support the recommendation that the condition be specifically considered.
C. There is insufficient evidence to recommend for or against the inclusion of the condition, but a recommendation may be based on other grounds.
D. There is fair evidence to support the recommendation that the condition be excluded from consideration.
E. There is good evidence to support the recommendation that the condition be excluded from consideration.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Clinical Validation-Trial Implementation Period
Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The method of guideline review is broadly described in "Guidelines for Guidelines" on the Veterans Health Administration (VHA) Web site and applicable to all guidelines developed by Veterans Affairs/Department of Defense (VA/DoD). Briefly, a final draft of the guideline is distributed for field testing, comment and independent review. Network designated staff are asked to use the guideline in the direct care setting and provide feedback to key personnel and/or directly to the guideline development experts via the web page available for online comment. This portion of the field test is intended to provide feedback regarding the format and usability of the guideline and the companion implementation tools/guideline summary and pocket cards. Peer review of the guideline is completed by at least three VA/DoD staff, including primary care clinicians, who have been trained and previously assigned to perform the independent review.

After final editing to incorporate feedback as appropriate, the guideline, tools, and comments are submitted to the National Clinical Practice Guideline Council for review. This Council's recommendations and a summary of the guideline and the provider tools are forwarded to the Under Secretary for Health for signature and distribution.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The recommendations for post-deployment health evaluation and management are organized in a single module consisting of three parts (algorithms) that address three aspects of related care. Each algorithm, the annotations that accompany it, and the evidence supporting the recommendations are presented below. The recommendation grading (A-E) and the quality of evidence (I-III) are defined at the end of the "Major Recommendations" field.

Post-Deployment Health Evaluation and Management Algorithm

A. Department of Defense/Veterans Health Administration Health Care Beneficiary with Deployment Related Health Concern

Definition

A Department of Defense (DoD) or Veterans Health Administration (VHA) health care beneficiary presenting to a primary care clinician for the evaluation and management of a post-deployment health concern.

Annotation

"The nation has a commitment to protect and care for, to the maximum extent possible, the health of military personnel, veterans, and their families. This responsibility is minimizing adverse health effects of military service--both those experienced during the years of military service and those that first appear years after the period of military service" (Presidential Review Directive 5, 1998).

Symptoms and health concerns after a deployment are often indistinguishable from those reported in routine primary health care settings. However, deployment also presents unique and often difficult challenges for military members, veterans, and their families. The military members may experience physical or psychological trauma resulting from a variety of factors, such as combat, environmental extremes, illness or infectious disease, injury, weapons of mass destruction, and toxic environmental threats. Female military members may undergo additional health concerns during deployment, including decreased privacy and hygiene, urinary tract and fungal infections, unplanned pregnancy, and sexual assault that may impact their reproductive future post-deployment.

Deployment may create or exacerbate existing family problems and strain already fragile family relationships and coping mechanisms. Family members may experience heightened personal and interpersonal stress as a result of sudden changes within the family unit--both the military member's separation and return. The heightened stress may adversely affect the physical and mental health of each family member and may also lead to domestic violence.

All persons should be asked "Is your problem today related to a deployment?" upon visiting any provider for an illness or concern. This is easily accomplished when the person's vital signs are taken. The condition-relatedness to deployment should be noted in the person's record. The clinician can proceed further based on clinical relevance and appropriateness.

It is important for the clinician to determine if the patient has been deployed (see Annotation C) and if the patient's symptoms are deployment related. The determination should be made in light of the patient's entire medical and deployment history. Even then, in some cases it could be premature to determine that the health concern or problem is deployment related. If a definitive determination cannot be made and either the patient or the clinician

continues to suspect that the concern or problem is deployment related, the clinician should continue with the next steps in this guideline.

B. Ascertain Chief Complaint/Concern; Obtain Medical Psychosocial History, Physical Exam, Laboratory Tests

Objective

Establish the reason for the patient's visit and obtain comprehensive patient data in order to reach a working diagnosis.

Annotation

The clinician should obtain and review the deployment history with the patient to surface potential links to the chief complaint or concern. The patient's beliefs, expectations, and personal circumstances are significant and may play a strong role in the management of their health care. Some military members are dissatisfied with how clinicians respond to deployment related health concerns. The clinician can validate the patient's deployment related health concerns and communicate care and understanding by completing a thorough and early review of the following:

- All Medical Records
- Medical History and Psychosocial Assessment
- Review of Systems
- Physical and Mental Status Exam
- Routine Test Results

Unstable health problems should be addressed immediately before continuing with data collection.

C. Definition of Deployment

Objective

Identify patients who have a history of deployment.

Annotation

Deployment is defined as any current or past event or activity that relates to duty in the armed forces that involves an operation, location, command, or duty that is different from the military member's normal duty assignment. Military members meet deployment criteria anytime they leave the physical locale of the parent command and enter an environment for operational deployment or are stationed in a hostile territory.

The number of military members deployed in any specific operation can vary from one to hundreds of thousands. A deployment may last anywhere from a few days to six months or longer. Military members may deploy to a well-supported United States or foreign military base in a developed country, a

field setting in an urban or rural part of a developing country, or on a ship visiting foreign ports.

The Clinical Practice Guideline for Post-Deployment Health Evaluation and Management also applies to individuals who were not deployed, but have health concerns relating to a deployment; e.g., family members of recently deployed personnel.

D. Reinforce Partnership with the Patient to Address Deployment Concern(s)

Objective

Promote patient trust at the earliest opportunity.

Annotation

Recent experience has shown that individuals concerned about health after deployment may be especially inclined to distrust the Government, making it particularly important for clinicians to establish individual rapport and foster open communication with patients.

Post-deployment health communication typically involves high concern issues. Surveys, case studies, and focus groups indicate that trust and credibility are not quickly or easily established. Rather, they are the result of building and maintaining partnerships.

To establish a partnership with the patient, the clinician should:

- Acknowledge the patient's concerns and symptoms
- Indicate commitment to understand the patient's concern and symptoms
- Encourage open and honest transfer of information that will provide a more comprehensive picture of patient's concerns and medical history
- Indicate commitment to allocate sufficient time and resources to resolving the patient's concerns
- Avoid open skepticism or disapproving comments in discussing the patient's concerns

At each patient visit the clinician should consider the following:

- Ask if there are unaddressed or unresolved concerns
- Summarize and explain all test results
- Schedule follow-up visits in a timely manner
- Explain that outstanding or interim test results and consultations will be reviewed during the follow-up visits
- Offer to include the concerned family member or significant other in the follow-up visit

E. Review History of Deployment; Research Deployment Health Issues

Objective

Enhance the clinician's knowledge regarding deployment health issues.

Annotation

The clinician can validate the patient's deployment related health concerns and communicate care and understanding.

Often when evaluating patients with deployment related health concerns, the patient initially knows more about deployment specific exposure than the clinicians. Before proceeding further, the clinician should obtain a clear understanding of the possible risk factors and range of agents the patient may have been exposed to. The clinician should thoroughly research the patient's deployment related health concerns and identify known risks and exposures for a particular deployment. A follow-up appointment provides the clinician with time to research relevant information before discussing it with the patient.

A vast amount of this information is available at various governmental and non-governmental sources. The Deployment Health Resource Web site will provide links to these sources and other information about potential exposures, immunizations, endemic diseases, and other related information. This site will include information from civilian publications and provide links to other data sources that could provide additional information to the clinician and patient. See the Deployment Health Resource Web site.

F. Does the Patient Present Signs or Symptoms?

Objective

Identify a patient who has an injury or illness.

Annotation

Often after deployment, patients may be reluctant to share signs and symptoms they are experiencing because of occupational and other concerns, including fear of losing their job. Patients may express their concerns as a request or offer additional complaints during the examination that may clarify the true reason for the visit. In other cases, the patient without symptoms may want to discuss deployment related health concerns. It is important to remember that either the patient's report of symptoms or the observation of a sign can determine the presence of an illness or injury.

Clinicians should be aware of the fact that our understanding of health outcomes after deployment is limited. Some symptoms may not be obvious or may not have manifested yet.

- Signs are defined as objective physical findings.
- Symptoms are defined as subjective complaints.
- The presence of either signs or symptoms warrants further investigation and can suggest the presence of an illness or injury.

- The absence of both signs and symptoms indicates a need to proceed with patient education and reassurance.
- Unusual or emerging illnesses might present as previously unrecognized constellations of symptoms and signs.

G. Can a Final Diagnosis be Reached?

Objective

Determine if the patient has a recognizable medical condition.

Annotation

After determining that the patient is presenting signs or symptoms, the clinician needs to formulate a working diagnosis. Additional studies or the patient's response to treatment will confirm the working diagnosis. In some cases, the clinician will be unable to formulate a diagnosis, in which case it is important to ensure that the following activities were completed and reviewed:

- A complete and thorough medical record review
- A complete history and physical examination (see Annotation B)
- All basic laboratory studies and tests (see Annotation B)
- A thorough deployment history (see Annotation E)
- A review of the health risk associated with the deployment (see Annotation E)
- A standard health assessment (e.g., Patient Health Questionnaire™ [PHQ] and Post-Traumatic Stress Disorder CheckList [PCL-C])

It is highly recommended that two or more patient visits be completed before concluding the patient does not have a recognizable illness or injury.

H. Review Medical Record

Objective

Further evaluate and review all patient data.

Annotation

The clinician should review patient's entire medical history, looking for indicators or symptoms that may have been missed upon first review.

The Medical Record review should include the following:

- Complete medical history
- Family and social history
- Occupational and deployment history, including possible risks, hazards, and exposures to toxic agents
- Prescription history, including over-the-counter medications and herbs
- Pre- and post-deployment physical examinations, including immunizations and other prophylactic measures

- Clinical notes
- Emergency room evaluations
- Other routine history and physical examinations
- Radiological, laboratory, and other ancillary test results

I. Obtain Ancillary Studies as Indicated

Objective

Further evaluate and confirm the working diagnosis.

Annotation

Selected ancillary studies should be performed based on clues derived from the history and physical examination. The clinician should avoid performing ancillary studies purely for the basis of screening as these tests may have very low specificity, may result in false positive results, and may cause unrealistic expectations on behalf of the patient.

J. Research Deployment Health Issues

Objective

Enhance the clinician's knowledge regarding deployment health issues.

Annotation

Often when evaluating patients with deployment related health concerns, the patient initially knows more about deployment specific exposure than the clinicians. Before proceeding further, the clinician should obtain a clear understanding of the possible risk factors and range of agents the patient may have been exposed to. The clinician should thoroughly research the patient's deployment related health concerns and identify known risks and exposures for a particular deployment. A follow-up appointment provides the clinician with time to research relevant information before discussing it with the patient.

A vast amount of this information is available at various governmental and non-governmental sources. The Deployment Health Resource Web site will provide links to these sources and other information about potential exposures, immunizations, endemic diseases, and other related information. This site will include information from civilian publications and provide links to other data sources that could provide additional information to the clinician and patient. See the Deployment Health Resource Web site.

K. Asymptomatic Patient with Health Concern

Definition

A patient who expresses a health concern, yet does not exhibit or describe any discernable illness, is categorized as "asymptomatic with health concern." These concerns may be expressed in the form of questions about illness,

exposure, or recent media coverage. The clinician should continue to nurture the patient-clinician partnership, elicit the patient's trust, and address the patient's health concerns.

A non-deployed family member may express a health concern that is frequently related to reproduction or the possibility of a contagious illness. In addition, he or she may seek information and reassurance regarding changes or symptoms they have observed in a deployed spouse.

L. Provide Reassurance and Patient Health Education

Objective

Validate the patient's thoughts, feelings, and attitudes, reassure the patient, and reinforce the patient-clinician partnership.

Annotation

Risk Communication:

Risk Communication involves the exchange of information among interested parties about the nature, magnitude, significance, or control of a risk. Clinicians are continually asked to provide information about health, safety, and environmental risks to interested individuals, families, and communities. Risk assessment provides a strong foundation for the understanding of a risk and can be an important perspective for clinicians. Risk Communication is a crucial component of the care, treatment, and support for the patient, patient's family, or significant others.

In order to maintain the patient-clinician partnership, it is necessary to address and discuss the patient's concerns throughout the evaluation processes. This communication involves a two-way dialogue between the patient and clinician and is especially critical when a diagnosis has not yet been established. The effectiveness of communications involving a highly personal concern, such as the patient's personal health, is primarily determined by the patient's perception of how trusted and credible the clinician is.

There are four factors that influence perceptions of trust and credibility for discussions of high concern issues:

- Caring and empathy
- Competence and expertise
- Dedication and commitment
- Honesty and openness

Patient Education:

Patient education is one of the most important responsibilities of the clinician. It is facilitated by attention to the patient's expectations, beliefs, and decisions.

Patients bring a set of beliefs about themselves and the meaning of their symptoms and environmental exposures into encounters with their clinician. Patient expectations of illness and the consequences of exposures may differ significantly from scientific models. The goals of the clinician should include attempting to understand the patient's beliefs, informing the patient about pertinent scientific information, and establishing a collaborative and negotiated understanding upon which further communication and work can be based. Some types of patient education may be more effectively provided by other members of the health care team or in a group setting.

Quality of Evidence: II-2B; Strength of Recommendations: A

Quality of Evidence: II-3; Strength of Recommendations: A

M. Does the Patient's Concern Persist?

Objective

Identify an asymptomatic patient who continues to have a health concern.

Annotation

A second direct patient contact should be made within two to four weeks of the initial visit to allow for re-evaluation and to arrange continued contact and access to care, if necessary. Contact should be made by telephone or in person, if possible.

N. Reevaluate/Consider Consultation

Objective

Resolve the patient's health concern.

Annotation

If the patient's health concern persists despite reassurance and education, the clinician should re-evaluate the patient's medical data to assure that a diagnosis has not been missed and assess the patient's status for the next course of action. The clinician should provide the patient with additional reassurance and educational material, if indicated, keeping in mind that patient dissatisfaction is often related to communication variables. To increase patient satisfaction the clinician should provide detailed explanations to the patient using less medical jargon.

The clinician should consider discussing the patient's medical data with another clinician or consulting with or referring to a specialist. The consulted specialist may be able to interact and communicate more effectively with the patient regarding this type of health concern or may have experience in communicating with patients who exhibit similar health concerns.

Consultation sources, when clinically appropriate, include but are not limited to:

- Social Services
- Family Advocacy Program
- Preventive Medicine/Public Health
- Bioenvironmental Engineering/Environmental Sciences/Industrial Hygiene
- Reproductive Toxicology
- Genetic Counseling
- Health Promotions
- Medical Specialty Consultations
    - Infectious Disease
    - Psychiatry/Psychology
    - Pulmonary
    - Cardiology
    - Internal Medicine
    - Allergy/Immunology
    - Women's Clinic - Obstetrics/Gynecology
    - Gastroenterology
    - Rheumatology
    - Neurology
- Health Information/Education Sources
- Spiritual Counseling

O. Follow-Up as Indicated

Objective

Assure that the patient's health concerns have been addressed.

Annotation

It is important that the clinician provide the patient with the opportunity to digest the information provided during the appointment and to discuss concerns with friends and family. The patient may think of additional questions or need clarification of specific issues. The clinician should provide a means for the patient to contact them directly (e.g., e-mail, voice mail, or pager). To reinforce the trust and credibility factors of empathy and caring, honesty and openness, and dedication and commitment, the clinician should reaffirm with the patient the availability of future appointments to discuss current or future concerns.

P. Patient with Health Concern and No Diagnosis Established

Definition

A patient with no established diagnosis will fall into one of four categories:

- Well-recognized diseases not yet manifesting common signs and symptoms

- Emerging diseases--Objective finding with as yet unknown etiology based on current scientific knowledge (e.g. human immunodeficiency virus [HIV] in 1982)
- Medically unexplained physical symptoms--Symptoms without isolated objective findings and clinically identifiable pathophysiology
- Isolated objective findings--Physical signs or laboratory abnormalities without symptoms

Note: Patients may also end up in this category because of clinician or laboratory error (e.g., false positive or negative results or misinterpretation of positive or negative results).

Q. Reevaluate Patient Data and Collaborate with Colleague

Objective

Reassess the progress of the patient's workup and the probability of identifying a diagnosis based on currently available data.

Annotation

Input from colleagues with varying expertise may provide the clinician with a fresh viewpoint regarding the patient's concerns.

Note: Patients may end up in this category because of clinical or laboratory error (e.g., false negative or false positive results or misinterpretation of positive or negative results).

R. Discuss Issues with Patient, Provide Reassurance, and Reinforce Patient-Clinician Partnership

Objective

Validate the patient's thoughts, feelings and attitudes, reassure the patient, and reinforce the patient-clinician partnership.

Annotation

At this point in the workup, the patient is likely to be intensely concerned and potentially mistrustful because the clinician has not identified a cause or explanation for their concerns.

Risk Communication:

In order to maintain the collaborative clinician-patient partnership, it is necessary to address and discuss patient and family concerns throughout the evaluation process. This communication involves an open two-way dialogue between patient and clinician. This is especially important when the diagnosis remains in doubt or when the clinician and the patient disagree about the diagnosis. Under these circumstances, patient concerns escalate and increase any preexisting mistrust of the clinician. The effectiveness of communication

regarding highly personal concerns, such as a health concern, is primarily determined by the patient's assessment as to how credible and trustworthy the clinician is.

There are four factors that will most influence patient perceptions of clinician trustworthiness and credibility in the presence of a persistent unresolved health concern. These are the patient's assessment of the clinician's (for further discussion see Annotation L):

- Caring and empathy
- Competence and expertise
- Dedication and commitment
- Honesty and openness

An additional factor to consider under the circumstances of a post-deployment evaluation is external information that the patient and his or her family may be reading or seeing. For example, if after the deployment in question there are popular theories about illnesses that have received media attention, this may reduce the credibility of the Federally-employed clinician, especially when symptoms are undiagnosed after an extended evaluation.

Under these difficult circumstances, the clinician should:

- Maintain open communication with the patient
- Take the time needed to explain the available findings and acknowledge clinical uncertainty where it exists
- Convey a sense of optimism regarding diagnosis, treatment, and prognosis
- Continue to follow the patient's progress, since discontinuing contact or referring without a return visit is likely to leave the patient feeling rejected, angry, and mistrustful
- Always make good on his or her word (e.g., if one promises to talk with an expert, then do it and tell the patient about it later)
- Involve the patient's family or significant others (sometimes the family is more concerned regarding the patient's health than the patient is) unless the patient refuses family involvement

Quality of Evidence: II-2B; Strength of Recommendations: A

S. Does the Patient Present Acute or Progressive Symptoms?

Objective

Identify the patient who has an acute, subacute, or progressive illness.

Definitions

Definitions for acute or progressive symptoms in the context of the Guideline are as follows:

- Acute--Manifestations of illness of less than 3 months duration

- Subacute--Manifestations of illness of 3 to 6 months in duration
- Chronic--Manifestations of illness that are longer than 6 months in duration
- Progressive--Clinically appreciable deterioration during a 3 to 6 month period

Annotation

Acute or progressive symptoms are more likely to represent a diagnosable disease than are symptoms of remote onset or chronic, intermittently relapsing nature. When the diagnosis is not apparent after the initial primary care evaluation, the clinician should take an aggressive approach to diagnostic testing in order to diagnose and treat an acute or progressive illness in a timely manner.

T. Perform Additional Ancillary Studies as Indicated

Objective

Provide objective findings that will result in a diagnosis.

Annotation

When the patient presents with acute or focused signs and symptoms, the clinician should perform additional ancillary studies necessary to obtain a diagnosis. Symptoms of sudden onset or progressive course are more likely to have a diagnosable disease or structural abnormality than are symptoms of remote onset and/or chronic, intermittently relapsing course. The opportunity for timely intervention in the setting of acute or progressive illness dictates an aggressive approach to diagnostic testing, even when the diagnosis is not apparent after the initial primary care evaluation.

U. Can (Has) a Diagnosis Be (Been) Established?

Objective

Identify patients for whom there is a well-defined diagnosis.

Annotation

A diagnosis is a clinically defined injury or disease based on objective and reproducible clinical manifestations of examination, laboratory testing, or medical imaging.

Virtually all patients who see a clinician will receive a label. Biomedicine is firmly predicated on the notion that proper treatment is based upon recognition of the correct disease. However, for syndromes such as multiple chemical sensitivity, chronic fatigue syndrome, fibromyalgia, temporomandibular disorders, fibrositis, interstitial cystitis, irritable bowel syndrome, and chronic pelvic pain, there is ample evidence of diagnostic overlap and limited evidence to support discrete illnesses with distinct

pathophysiologies or natural histories. For most of these and other constellations of persistent physical symptoms, comprehensive biomedical evaluation yields few consistent objective findings and does little to guide clinical management or provide insight into associated functional impairment. Typically, these diagnoses are largely descriptive (e.g., retropatellar pain syndrome) or based on hypothesized etiology (e.g., fibromyalgia) rather than a known pathophysiology. Under the Guideline, conditions that are labeled but are not an objectively evident injury or disease are NOT considered a diagnosis because they do not lead to a specific injury or disease based treatment.

V. Is Systemic Disease Suspected?

Objective

Identify patients with potential systemic disease.

Annotation

It is possible for patients with diagnosable diseases to initially present with acute and unfocused or non-localized symptoms. Diagnosis for these maladies is difficult and often delayed. These conditions include, but are not limited to, connective tissue diseases (e.g., systemic lupus erythematosus and Sjögren's syndrome), neurological diseases (e.g., multiple sclerosis), infectious diseases, and neoplastic diseases. If the patient's symptoms suggest one of these conditions, the clinician should consider additional diagnostic studies (see Annotation T).

W. Consider Consulting a Specialist

Objective

Provide specialized services to individuals who may need and could benefit from them.

Annotation

In the presence of 1) acute or progressive or 2) chronic and localized symptoms that remain undiagnosed to this point in the evaluation, the clinician is urged to consider consulting an appropriate specialist. In most cases, the (primary care) clinician should remain engaged in the care of the patient after the consultation (see Annotation T for a list of problems and corresponding specialty consultants).

X. Does the Patient Present Localized Symptoms or Signs?

Objective

Identify patients with regionally-focused symptoms or signs.

Definition

Localized symptoms or signs are those that involve a single organ system (e.g., skin or nervous system) or a single body area (e.g., knee, head, or epigastrium). Symptoms involving different body quadrants, noncontiguous areas, or multiple organ systems are not localized.

Annotation

Patients experiencing chronic problems with localized or regional symptoms often lend themselves to simple explanations or interventions that require specialized expertise. Because of the need for specialized knowledge, these explanations and treatments have remained unconsidered (e.g., arthroscopy for chronic orthopedic illnesses). In this situation, extended evaluations involving multiple body systems or regions are likely to be inappropriate. Instead, an in depth but localized or anatomic approach at the hands of a specialist may be needed.

XX. Acute Unexplained Symptoms or Signs/Multiple Chronic Unexplained Physical Symptoms

Definition

One of the main obstacles to understanding medically unexplained symptoms is the confusing terminology sometimes applied to them. For clarity, the Guideline adopts a consistent terminology. "Unexplained symptoms" or "medically unexplained symptoms" are the terms used to describe physical symptoms that provoke care-seeking, but have no clinically determined pathogenesis after an appropriately thorough diagnostic evaluation. Clinicians, scientists, symptomatic individuals, the media, employers, and other groups frequently apply labels to unexplained symptoms for different purposes. These labels may communicate an implied pathogenesis, such as chronic fatigue syndrome (infectious), certain low-level chemical sensitivities (allergic), somatoform disorders (psychiatric), and fibromyalgia (rheumatologic). The Guideline will rely on the more generic "medically unexplained symptoms" or "unexplained symptoms" to describe diagnoses or conditions characterized by symptoms, rather than objective clinical evidence (i.e., signs found on examination or laboratory findings) of an underlying pathophysiological process.

Recently, the Centers for Disease Control (CDC) defined "chronic multisymptom illness" and applied the definition to study the relationship of the Gulf War to subsequent illness. The chronic multisymptom illness definition has the advantage of encompassing several common syndromes that are comprised of unexplained symptoms. The chronic multisymptom illness definition, developed using factor analysis and clinician assessments, is the presence of two or more of the following symptoms: musculoskeletal pain in more than one body region, debilitating fatigue, and cognitive or mood impairment. Frequently associated symptoms such as digestive, respiratory, and nervous system symptoms were not included in the Centers for Disease Control definition.

Unexplained symptoms occurring in the general population include fibromyalgia, chronic fatigue syndrome, hysteria, somatization disorder,

conversion disorder, multiple chemical sensitivities, and other names. Patients with chronic fatigue syndrome, fibromyalgia, and temporomandibular disorder may also experience overlapping conditions.

'Disease' and 'illness' are terms sometimes used in the Guideline. When properly used, these terms are not interchangeable. A disease is a pathophysiological process that is identified via objective findings (i.e., signs found on clinical examination or laboratory evidence). In contrast, illness is a subjective lack of wellness that is identified via the complaints and behaviors of the affected person. Illnesses encompass the complete range of physical and mental symptoms and the suffering that is experienced with them. Symptoms and suffering are unusual in some diseases. For example, individuals with essential hypertension seldom perceive their disease until late in its natural history. Similarly, many illnesses involve severe disabling symptoms that are the source of undeniable suffering, even though objective clinical evidence of disease is lacking. Unexplained symptoms may be thought of as illness in the absence of known disease. Unexplained symptoms may also be present if a disease is of insufficient severity to explain the full extent of the associated symptoms.

Y. Discuss Issues with Patient, Provide Reassurance and Education, and Reinforce Patient-Clinician Partnership

Objective

Maintain collaboration and convey optimism and future options for assistance.

Annotation

Most patients at this point will feel hopeless, helpless, and mistrustful. The most important message to convey is the availability of help even though the specific cause for their concerns has not been identified. In approximately one out of three patients presenting with a physical symptom, a physical cause could not be identified upon medical evaluation.

Helpful techniques for conveying optimism to the patient include the following:

- Introduce the notion to the patient that medically unexplained symptoms are distressing and counseling may help them cope.
- Explain to the patient the common nature of medically unexplained symptoms in routine practice.
- Encourage the use of a symptom diary or journal.
- Provide health promoting educational handouts.
- Encourage behavior modification, exercise, weight loss, diet modification, and sleep hygiene.
- Encourage the reduction or cessation of alcohol, tobacco, and caffeine.
- Counsel the patient on the notion that "more care is not better care" and may cause "more harm than good."
- Advise as to the adverse effects of polypharmacy and specific medications (i.e., opioids, benzodiazepines, and related compounds).

- Emphasize that no catastrophic or progressive diseases have been found despite extensive work-up and consider the possibility of a sleep disorder.

This level of education is often helpful to present in a group format.

The clinician should refocus the attention from symptoms to improving patient functioning. Potentially modifiable psychosocial barriers to patient functioning could include:

- Living environment--Homelessness can perpetuate chronic illness as the result of environmental exposure and virtually non-existent personal hygiene.
- Support systems--Negative support on the part of the spouse, family, or significant other can impair and even worsen functionality.
- Job--Workplace factors have been associated with illness-related behavior.
- Finances--disability compensation can perpetuate illness by requiring continuing symptoms and disability for the worker to be eligible for benefits.

Quality of Evidence: 2B; Strength of Recommendations: A (Bluru et al., 1996)

Z. Follow-Up -- Monitor Changes in Patient Status

Objective

Establish the patient's functional baseline and monitor for changes in general health and functional status that may require specific intervention.

Annotation

A patient reaching this point in the algorithm requires "watchful waiting" as the primary mode of treatment. The components of watchful waiting in the patient with previously evaluated, but thus far medically unexplained, physical symptoms or signs include the following:

- Use diagnostic testing conservatively. Order new tests based upon clinical suspicion only, rather than in a "shotgun" fashion. Except under unusual circumstances, testing should be done only when there are acute changes in the patient's clinical status that involve objective signs. Avoid ordering new tests for subjective findings or findings that represent acute exacerbations in an already chronic pattern of symptomatology, so-called "flare-ups" of symptoms.
- Use follow-up visits as an opportunity to review and explain prior testing the patient has received and what it means, accentuating normal findings unless abnormal findings have some specific clinical meaning (i.e., don't confuse the patient with equivocal findings of unknown significance).

- Avoid the use of multiple symptomatic medication treatments as adverse effects of medications increase the risk of harm. Polypharmacy is a common source of morbidity in these patients because they visit physicians often and over extended periods.
- Avoid the use of medications that are harmful if taken for long periods, such as narcotic analgesics or central nervous system depressants (e.g., sedatives, "muscle relaxers", barbiturate formulations such as Fiorinal or Fioricet, benzodiazepines, and related anxiolytics).
- Offer targeted reassurance. Blanket reassurance often leaves the patient feeling as though the clinician does not understand his or her specific concern. Instead, aim reassurance at specific beliefs or misinformation.
- Negotiate behavioral goals collaboratively with the patient. Identify, with patient input, what health behaviors are important to modify. Avoid becoming proscriptive; for example, you may think the patient is obese, but unless the patient sees his or her weight as a problem, clinician directives to lose weight will fall on deaf ears. Worse yet, clinician directives may alienate the patient and reduce adherence to the overall management plan.
- Encourage physical and role reactivation. In the absence of a clear diagnosis, this is usually the major behavioral goal: maximizing and sustaining the patient's ability to function. Inquire at each visit about how the patient is functioning. Look for nonjudgmental ways to incrementally maximize physical activity levels, remembering that efforts must "start low and go slow" in the setting of chronic inactivity.
- Maximally involve social supports.
- Ensure continuity of care. Organize the patient's care around a single clinician and make visits time contingent (scheduled rather than "Pro re nata [as needed]" for exacerbations of chronic symptoms). Optimal frequency of visits is generally 4-6 weeks.
- Use consultant resources judiciously. Specialists will often tend to over-emphasize new diagnostic evaluations, often reordering previously ordered tests. This can lead to false positive findings and iatrogenesis.
- Consider consulting with a mental health specialist for patients who seem inordinately distressed by their symptoms. Be sure, however, to explain the reason for the consultation to both the consultant and the patient. Most patients will feel that their credibility is being questioned or that they are being accused of "imagining" their symptoms when sent to a mental health specialist. In the military, they may also fear that the consultation will have career implications. Mental health consultation should only be made when it is acceptable to the patient, except under circumstances of a psychiatric emergency, which usually means that the patient represents an immediate threat of harm to self or others.

Measurement requirements:

Recently-deployed populations are at risk for health concerns, so careful health monitoring of individuals seeking post-deployment care is essential. Accordingly, there are specific measurement requirements. The Short-Form Health Survey-36 (SF-36) has been widely used in clinical settings to assess

functional status and general health across eight dimensions, (see Appendix C of the original guideline). A veteran-specific instrument has been developed (SF-36V) that differs only slightly from the original tool in providing a spectrum of responses to two questions regarding work or leisure-time limitations due to physical or emotional problems. The Short-Form Health Survey-36 Veterans assessment tool has been used to assess functional status in over 1.5 million veterans who receive care at Veterans Administration medical facilities.

AA. Provide Patient Education

Objective

Provide health education to patient and family.

Annotation

Patient Education is one of the most important responsibilities of the clinician. It is facilitated by attention to the patient's expectations, beliefs, and decisions.

Patients bring a set of beliefs about themselves and the meaning of their symptoms and environmental exposures into encounters with their clinician. Patient's expectations of illness and the consequences of exposures may differ significantly from scientific models. The goals of the clinician should include attempting to understand the patient's beliefs, informing the patient about pertinent scientific information, and establishing a collaborative and negotiated understanding upon which further communication and work can be based. Some forms of patient education may be more effective if provided by other members of the health care team or in a group setting.

BB. Are There Indications for Collaboration with a Deployment Health Clinical Center (DHCC)?

Objective

Determine whether collaboration with a DHCC will aid in the treatment of the patient's diagnosed illness.

Annotation

Referral centers have been designated in both DoD and VHA facilities. Consultation with these centers offers the clinician and patient access to clinicians with special expertise and experience, entry into approved clinical trials, and diagnostic testing and evaluation that may not be available locally or at other referral centers.

If the clinical evaluation reveals a well-defined diagnosis with a widely accepted treatment protocol, and the patient is willing to accept this diagnosis as the cause of signs or symptoms, the clinician should begin therapy at the local facility. The clinician should attempt to reach an agreement with the patient on an appropriate

interval of time to reassess signs, symptoms, and concerns and jointly determine whether further evaluation is necessary. The clinician should consider collaboration with, and the possible referral to, a DHCC to ensure that deployment-related health concerns receive full consideration.

If the clinical evaluation reveals a diagnosis or disease entity that is newly defined or the effective treatment protocol has not been established for the diagnosis, the clinician and patient may benefit from collaboration with a DHCC. Collaboration may occur through in-person, telephonic, or other written communication depending on the level of clinical urgency. Consultation with these centers offers the clinician and patient access to practitioners with special expertise and experience, entry into approved clinical trials, and diagnostic testing and evaluation that may not be available locally or at other referral centers.

CC. Establish Contact and Collaborate with a Deployment Health Clinical Center (DHCC)

Objective

Contact and collaborate with the assistance of a DHCC to manage complicated deployment-related health care concerns.

Annotation

Referral centers have been designated in both DoD and VHA facilities. Consultation with these centers offers the health care provider and patient access to clinicians with special expertise and experience, entry into approved clinical trials, and diagnostic testing and evaluation that may not be available locally or at other referral centers.

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DD. Follow-Up as Indicated

Objective

Assure the patient's current deployment related health concern is resolved.

Annotation

As part of the overall treatment plan, the clinician should continue to provide patient instruction and monitor the course of the patient's illness for the

effectiveness of treatment and potential identification of new concerns in each follow-up appointment. The clinician and patient should determine the frequency of visits based on clinical indications and patient need.

The clinician should match the patent's diagnosis with the specific deployment event when possible and report deployment related health concerns, as appropriate.

Definitions:

Quality of Evidence

I Evidence is obtained from at least one properly randomized controlled trial.

II-1 Evidence is obtained from well-designed controlled trials without randomization.

II-2 Evidence is obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.

II-3 Evidence is obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments could also be regarded as this type of evidence.

III Opinions of respected authorities are based on clinical experience, descriptive studies in case reports, or reports of expert committees.

Strength of Recommendations

A. There is good evidence to support the recommendation that the condition be specifically considered.
B. There is fair evidence to support the recommendation that the condition be specifically considered
C. There is insufficient evidence to recommend for or against the inclusion of the condition, but a recommendation may be based on other grounds.
D. There is fair evidence to support the recommendation that the condition be excluded from consideration
E. There is good evidence to support the recommendation that the condition be excluded from consideration

CLINICAL ALGORITHM(S)

An algorithm is provided for Post-Deployment Health Evaluation and Management Algorithm.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The quality and strength of the evidence are provided for selected recommendations (see "Major Recommendations"). Recommendations are based on consensus of expert opinions and clinical experience only when scientific evidence is unavailable.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Improvement in the local management of patients with post-deployment health concerns, which may thereby improve patient outcomes.
- The warmth and friendliness shown by the clinician is positively related to patient satisfaction. Furthermore, one study determined that health care satisfaction was positively associated with the patient's perception of the degree of interpersonal involvement and expressiveness of the clinician, and was negatively associated with the patient's perceived communicative dominance by the clinician.

POTENTIAL HARMS

None stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- Clinical practice guidelines, which are increasingly being used in health care, are seen by many as a potential solution to inefficiency and inappropriate variations in care. Guidelines should be evidence-based as well as based upon explicit criteria to ensure consensus regarding their internal validity. However, it must be remembered that the use of guidelines must always be in the context of a health care provider's clinical judgment in the care of a particular patient. For that reason, the guidelines may be viewed as an educational tool analogous to textbooks and journals, but in a more user-friendly tone.
- The Guideline is not intended to provide strict indications or contraindications to health care because multiple other considerations may be relevant for an individual patient, including past medical history, family setting, occupational needs, and lifestyle preferences. The reader is reminded that the Guideline does not supersede the clinical judgment of the clinician.
- The Guideline for the management of post deployment health is a novel effort. There are very limited research studies for this topic in the literature. Often, the most basic patient management questions and well-accepted care strategies have not been tested in randomized control trials. For example, no randomized clinical trials are likely to be conducted to evaluate the importance of a medical history and physical examination in management of patients after deployment. For many recommendations, there is insufficient evidence to determine whether or not routine interventions will improve clinical outcomes. Lack of evidence of effectiveness does not mean that there is evidence of ineffectiveness. Therefore, the recommendations for these well-accepted care strategies do not include grading of the strength of the evidence. The specific language used to formulate each recommendation

conveys panel opinion of both the clinical importance attributed to the topic and strength of available evidence. It is expected that this Guideline will encourage future research that will generate practice-based evidence for inclusion in future versions of the Guideline.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Clinical Algorithm

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

RELATED QUALITY TOOLS

- Post-Deployment Health Evaluation and Management Algorithm

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Veterans Health Administration, Department of Defense. Clinical practice guideline for post-deployment health evaluation and management, version 1.2. Washington (DC): Veterans Health Administration, Department of Defense; 2001 Dec. Various p.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2000 Sep (revised 2001 Dec)

GUIDELINE DEVELOPER(S)

Department of Defense - Federal Government Agency [U.S.]
Department of Veterans Affairs - Federal Government Agency [U.S.]
Veterans Health Administration - Federal Government Agency [U.S.]

GUIDELINE DEVELOPER COMMENT

The Post-Deployment Health Evaluation and Management Guideline was developed by and written for clinicians by clinical experts from the DoD, VHA, academia, a team of guideline development specialists, and an experienced moderator who facilitated the multidisciplinary panel. Internal Medicine, Family Practice, Preventive and Occupational Health, Public Health, Sports Medicine, Primary Care Physicians, Epidemiologists, Surgeons, Psychologists, Psychiatrists, Nurses, Nurse Practitioners, Physician Assistants, Quality and Risk Managers, Risk Communicators.

SOURCE(S) OF FUNDING

United States Government

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Department of Veterans Affairs Web site.

Print copies: Available from the Department of Veterans Affairs, Veterans Health Administration, Office of Quality and Performance (10Q) 810 Vermont Ave. NW, Washington, DC 20420.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Guideline overview. Washington (DC): Department of Defense, Veterans Health Administration; 2001. 6 p.

  Electronic copies available from the Department of Veterans Affairs (VA) Web site.

  Print copies: Department of Veterans Affairs, Veterans Health Administration, Office of Quality and Performance (10Q) 810 Vermont Ave. NW, Washington, DC 20420.

- Protecting those who serve. Strategies to protect the health of deployed U.S. forces. Washington (DC): National Academy of Sciences; 2000. 102 p.

  Electronic copies available from the National Academies Press Web site.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on January 14, 2003. The information was verified by the guideline developer on March 14, 2003.

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